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Engineering  
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Nashville, TN

**GRW Engineers, Inc.**

February 22, 2010

Mr. Adam Jackson  
Department for Environmental Protection  
Water Quality Branch  
200 Fair Oaks Lane, 4<sup>th</sup> Floor  
Frankfort, KY 40601

**Re: Water System Improvements – Phase II  
City of Centertown, Kentucky  
Section 401 Permit Application for  
Stream Crossing – Elk Creek  
GRW Project No. 3893**

Dear Mr. Jackson:

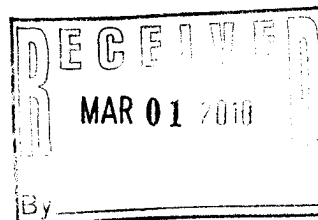
Enclosed for your review and approval are two (2) copies of an Application for Permit to Construct Across a Stream, including a USGS topographic map of the project location, plan drawing, and a typical creek crossing profile detail, for the above referenced project. This permit application is for the construction of a 2-inch HDPE water main crossing Elk Creek near Centertown, Ohio County, Kentucky.

The project is being initiated to provide service for potential customers on Oak Grove Road, and the need for this application is due to the aforementioned creek crossing. No net material will be placed or removed as part of the creek crossing. The lengths of stream impacted by the crossing will be 40 LF, and the shape and contours of the creek bottoms and sides will be maintained. The crossing is expected to be completed in 1-2 days. Appropriate erosion control measures will be used to reduce impact on the stream.

Should you have any questions or concerns, please feel free to contact me at (502) 489-8484, or [jpavoni@grwinc.com](mailto:jpavoni@grwinc.com).

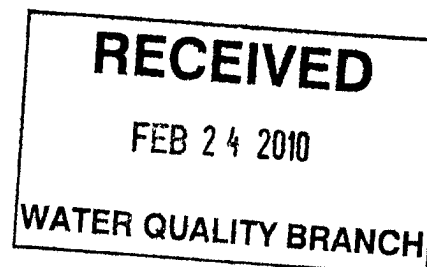
Sincerely,

Joseph V. Pavoni, P.E., LEED AP  
Project Manager

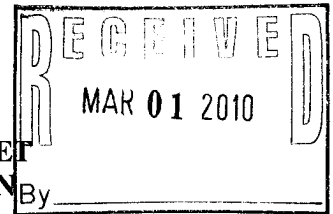


Enclosures (2)

Cc: Pat Kessinger, Centertown City Clerk (w/enclosures)



COMMONWEALTH OF KENTUCKY  
ENVIRONMENTAL AND PUBLIC PROTECTION CABINET  
DEPARTMENT FOR ENVIRONMENTAL PROTECTION  
DIVISION OF WATER



APPLICATION FOR PERMIT TO CONSTRUCT ACROSS OR ALONG A STREAM  
AND / OR WATER QUALITY CERTIFICATION

Chapter 151 of the Kentucky Revised Statutes requires approval from the Division of Water prior to any construction or other activity in or along a stream that could in any way obstruct flood flows or adversely impact water quality. If the project involves work in a stream, such as bank stabilization, dredging or relocation, a 401 Water Quality Certification (WQC) from the Division of Water will be required. This completed form will be forwarded to the Water Quality Branch for WQC processing. The project may not start until all necessary approvals are received from the KDOW. For questions concerning the WQC process, contact the WQC section at 502/564-3410.

If the project will disturb more than 1 acre of soil, A Notice of Intent for Storm Water Discharges will also be required. Both forms must be returned to the Floodplain Management Section of the Division of Water.

1. OWNER: City of Centertown, Kentucky (Pat Kessinger – City Clerk) 20226A  
Give name of person(s), company, governmental unit, or other owner of proposed project.

MAILING ADDRESS: City Hall, 816 Main Street, P.O. Box 517, Centertown, KY 42328

TELEPHONE #: 270-232-5067 EMAIL: patkessinger@att.net

2. AGENT: GRW Engineers, Inc., Joseph V. Pavoni, P.E., LEED AP  
Give name of person(s) submitting application, if other than owner.

ADDRESS: 11909 Shelbyville Road, Suite 100, Louisville, KY 40243

TELEPHONE #: 502-489-8484 EMAIL: jpavoni@grwinc.com

3. ENGINEER: Joseph V. Pavoni P.E. NUMBER: 23410  
Contact Division of Water if waiver can be granted.

TELEPHONE #: 502-489-8484 EMAIL: jpavoni@grwinc.com

4. DESCRIPTION OF CONSTRUCTION: Construct approximately 600 L.F. of 3-inch water main and  
List the items to be constructed in the floodplain

2400 L.F. of 2-inch water main along Oak Grove Road. Approximately 40 L.F. of 2-inch water main will cross a  
stream named Elk Creek. This is an extension of an existing line along Kirtley River Road.

Also, please see Attachment 1 for a further description.

5. COUNTY: Ohio NEAREST COMMUNITY: Centertown

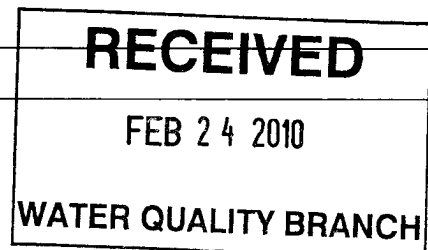
6. USGS QUAD NAME Equality LATITUDE/LONGITUDE: 37.4320 / -87.0724

7. STREAM NAME: Elk Creek WATERSHED SIZE (in acres): 1429

8. LINEAR FEET OF STREAM IMPACTED: 40 Feet

9. DIRECTIONS TO SITE: From the City of Centertown, take KY 69 west approximately 4 miles to Matanzas  
Rd. Take Matanzas Rd. north approximately 2.5 miles to Kirtley River Rd. Take Kirtley River Rd.

approximately 0.6 miles to Oak Grove Rd. Continue on Oak Grove Rd. approximately 0.2 miles to the  
stream crossing.



10. IS ANY PORTION OF THE REQUESTED PROJECT NOW COMPLETE? ☐ Yes ☒ No If yes, identify the completed portion on the drawings you submit and indicate the date activity was completed. DATE: \_\_\_\_\_
11. ESTIMATED BEGIN CONSTRUCTION DATE: May 1, 2010
12. ESTIMATED END CONSTRUCTION DATE: July 1, 2010
13. HAS A PERMIT BEEN RECEIVED FROM THE US ARMY, CORPS of ENGINEERS? ☐ Yes ☒ No If yes, a copy of that permit.
14. THE APPLICANT *MUST* ADDRESS PUBLIC NOTICE:

(a) PUBLIC NOTICE HAS BEEN GIVEN FOR THIS PROPOSAL BY THE FOLLOWING MEANS:

- \_\_\_\_\_ Public notice in newspaper having greatest circulation in area (provide newspaper clipping or affidavit)
- \_\_\_\_\_ Adjacent property owner(s) affidavits (Contact Division of Water for requirements.)

(b) X I REQUEST WAIVER OF PUBLIC NOTICE BECAUSE:

This project does not have any impact on flooding or the water course of the stream.

Contact Division of Water for requirements.

15. I HAVE CONTACTED THE FOLLOWING CITY OR COUNTY OFFICIALS CONCERNING THIS PROJECT:

Mrs. Pat Kessinger, City of Centertown, City Clerk

Give name and title of person(s) contacted and provide copy of any approval city or county may have issued.

16. LIST OF ATTACHMENTS:

List plans, profiles, or other drawings and data submitted. Attach a copy of a 7.5 minute USGS topographic map clearly showing the project location.

7.5 min USGS topo and plan sheet

Description of Construction (See Attachment 1)

17. I, pk (owners Initials) CERTIFY THAT THE OWNER OWNS OR HAS EASEMENT RIGHTS ON ALL PROPERTY ON WHICH THIS PROJECT WILL BE LOCATED OR ON WHICH RELATED CONSTRUCTION WILL OCCUR (for dams, this includes the area that would be impounded during the design flood).

18. REMARKS:

I hereby request approval for construction across or along a stream as described in this application and any accompanying documents. To the best of my knowledge, all the information provided is true and correct.

SIGNATURE: \_\_\_\_\_

Owner or Agent sign here. (If signed by Agent, a Power of Attorney should be attached.)

DATE: 2-19-10

SIGNATURE OF LOCAL FLOODPLAIN COORDINATOR: \_\_\_\_\_

Permit application will be returned to applicant if not properly endorsed by the local floodplain coordinator.

DATE: 2-19-10

SUBMIT APPLICATION AND ATTACHMENTS TO:

Floodplain Management Section  
Division of Water  
14 Reilly Road  
Frankfort, KY 40601

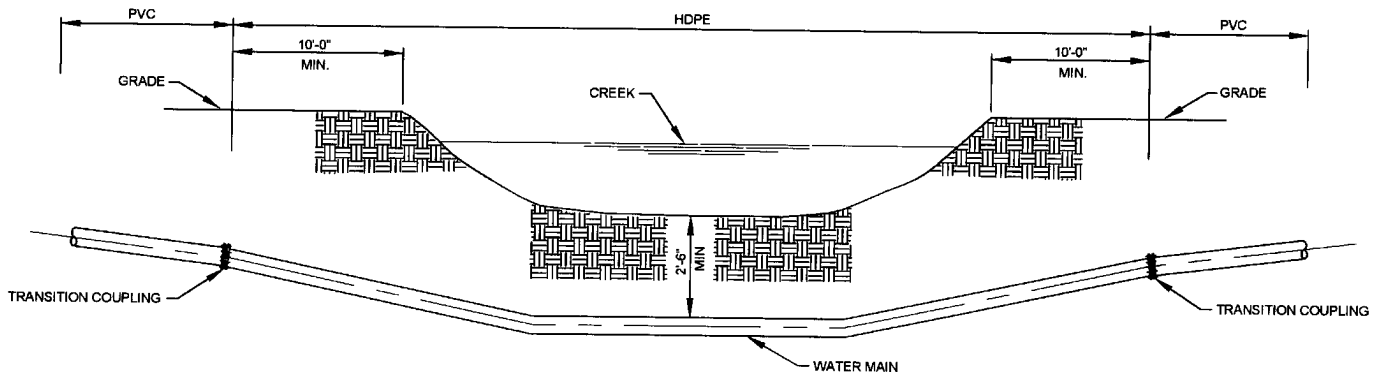


**Attachment 1**  
**Water System Improvements - Phase II**  
**City of Centertown, Kentucky**

The project is being initiated to provide water service to Oak Grove Road, and the need for this application is due to the crossing of Elk Creek. No net material will be placed in or removed from the creek during the project.

Creek Crossing No. 1: Approximately 17.8 cubic yards (40 ft long x 2 ft wide x 6 ft average depth) of soil will be removed during the crossing prior to pipe placement. After creating the trench, a bed of 6-inch thick dense graded aggregate will be placed down. The 2-inch pipe will then be laid and enveloped / covered with 12-inches of dense graded aggregate over its crown, resulting in the placement of approximately 4.9 cubic yards (40 ft long x 2 ft wide x 1.67 ft deep) of dense graded aggregate. Next the trench will be brought back to original grade by the placement of approximately 12.9 cubic yards of native material. The total quantity of replacement material is approximately 17.8 cubic yards which is the same quantity as the material removed for pipe placement. Therefore, no net material is being removed or placed. The shape and contours of the creek bottom and sides will be maintained. This work is expected to be completed in 1-2 days. Appropriate erosion control measures will be used to reduce impact on the stream.

**NOTE:** Though two creek crossings appear on the USGS topo map provided, there is in reality only one blue line stream that exists. **National Hydrography Dataset (NHD)** was used in design of the project, and verifies that there is only one blue line stream (which can also be seen on the plan sheet aerial photos). It is assumed that when the railroad track was built (shown in purple on the topo map) either CSX or Big Rivers Electric (who owns the spur) rerouted the southern-most leg of the creek. Elk Creek currently crosses Oak Grove Road just south of the old railroad spur and follows it along the track's western side.



## TYPICAL CREEK CROSSING IN ROCK

NOT TO SCALE

GRW PROJECT NO. 3893

REVISIONS			
NO.	DESCRIPTION	DATE	BY

SCALE CHECK: 1" = 10'-0" (1" = 10'-0" WHEN PLOTTED)

DESIGNED BY

MBS

CHECKED BY

MBS

APPROVED BY

JVP

## TYPICAL CREEK CROSSING PHASE II

WATER SYSTEM IMPROVEMENTS  
CITY OF CENTERTOWN, KENTUCKY



ENGINEERS - ARCHITECTS - PLANNERS  
www.grwinc.com

ALL RIGHTS RESERVED.  
THIS DOCUMENT IS THE PROPERTY OF GRW INC. AND SHALL  
NOT BE REPRODUCED, COPIED, OR USED FOR ANY PURPOSE  
OTHER THAN THAT SPECIFICALLY REQUESTED BY THE CLIENT.

DATE  
FEBRUARY, 2010

SCALE  
NTS

SHEET NO.

1